Electronic Version
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Thermally Tunable Laser with Single Solid Etalon Wavelength Locker

Abstract

A thermally tunable semiconductor laser and a wavelength locker are integrated on one single platform. The temperature of the platform, and the semiconductor, and the wavelength locker is actively adjusted by a thermal electrical cooler. The etalon has a free space range of material dispersion compensated according to the refractive index dependence on the wavelength of the etalon and temperature compensated according to the wavelength dependence of the temperature of the semiconductor laser. The locking point value is adjusted during the operation according to the measured temperature of the etalon.